

that, by acquainting more people with the plants around them, this volume will serve as "a stimulus, however slight, toward more permanent protection of our environment."—MARY L. BOWERMAN, Department of Botany, University of California, Berkeley, California.

Principles of Plant Breeding. By R. W. ALLARD. xi + 485 pp. John Wiley & Sons, Inc. New York and London. 1960. \$9.00.

In the Preface, the author states that "Principles of Plant Breeding" is designed primarily to serve as an undergraduate text for students in agriculture. The aim of the book is to stress principles, and to illustrate them with appropriate examples. This task has been accomplished with a high degree of competence. Allard writes with clarity, precision and force. For this reason it should not be difficult for an undergraduate with some training in biometry, and a semester course in genetics, to follow his closely reasoned explanations and interpretations. The entire book is arranged to serve as a text for a two-semester course, but it is conveniently segmented so it can be adapted to the needs of a one-semester or one-quarter course. In addition to its pedagogical function, this book can be studied with profit by the professional plant breeder. It will serve to broaden his outlook and invigorate his research.

The material used to illustrate the principles is slanted to some extent towards cereal and forage crops, but this is not unnatural. More thorough information about plant breeding techniques and procedures is available for this group of crops than for fruit, vegetable, fiber or ornamental crops. A few more examples could, however, have been drawn from cotton and possibly other crops.

As one could anticipate, knowing his interests, the author is particularly sure-footed and lucid in chapters concerned with quantitative genetics, population genetics, systems of mating and heterosis. But other sections, for example, "Breeding methods with cross-pollinated crops," "Breeding for disease resistance," and "Polyploidy," are also discussed with equal skill.

This reviewer can suggest only one feature that would perhaps increase the usefulness of the book. A set of carefully composed questions and problems at the end of each chapter might serve as a source of understanding and stimulation. This has been done to some extent by inserting questions in the legends of a few figures. More complete development of this aspect might add to the teaching value of the book.

The references are not copious, but adequate for the purpose. The book is notable for an unusually low incidence of typographical errors. A glossary of terms used in plant breeding and a good index add to its serviceability.

It has taken time for plant breeding to bridge the gap between art and science. "Principles of Plant Breeding" is likely to be marked as a significant milestone in establishing plant breeding as a full-fledged scientific discipline.—THOMAS W. WHITAKER, U. S. Horticultural Field Station, La Jolla, California.

NOTES AND NEWS

The Smithsonian Institution is reprinting Paul C. Standley's *Trees and Shrubs of Mexico*, Contr. U. S. National Herbarium, vol. 23, 1920-26, Parts 1 (pp. xviii + 1-169), 2 (xxxvii + 171-515), 3 (pp. xxviii + 517-848), and 5 (ii + 1313-1721), in 2 paper-bound volumes containing pts. 1-3 and pt. 5, respectively. The price of these 4 parts is \$20, postpaid. Part 4 (pp. xxxiv + 849-1312), which is available in the original 1924 edition published by the U. S. National Museum, will be enclosed free of charge. Orders should be accompanied by check and should be addressed to: Publications Distribution Section, Smithsonian Institution, Washington 25, D.C.